UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,142	03/15/2001	Eric J. Horvitz	MS171139.1	5357

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EXAMINER
STRANGE, AARON N

ART UNIT	PAPER NUMBER
2153	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	09/809,142	HORVITZ, ERIC J.
	Examiner	Art Unit	
	Aaron Strange	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>22 February 2007</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20,22,23,25-39 and 41-43* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☒ Claim(s) *38* is/are allowed.

6) ☒ Claim(s) *1-20,22,23,25-37,39 and 41-43* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a) ☐ All   b) ☐ Some * c) ☐ None of:

   1. ☐ Certified copies of the priority documents have been received.

   2. ☐ Certified copies of the priority documents have been received in Application No. _____.

   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, see page 12 of the Remarks filed 2/22/2007, with respect

to the rejection(s) of claim(s) 1-20,22,23,25-37,39 and 41-43 under 35 USC 102(b) have

been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

However, upon further consideration, a new ground(s) of rejection is made in view of

Horvitz et al., presented below.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1-20,22,23,25-39 and 41-43 rejected under 35 U.S.C. 103(a) as being

unpatentable over Theimer et al. (US 5,812,865) in view of Horvitz et al. ("Attention-

Sensitive Alerting"; Cited in IDS filed 5/27/2003).

4.   With regard to claim 1, Theimer discloses a system for facilitating communication

between entities, comprising:

        one or more communication modalities (video, telephone, etc) that respectively

provide for communication between at least two entities (at least Col 27, Lines 42-46),

and

a communication manager that analyzes a first communication data set

associated with a first entity (user A preferences) and a second communication data set

associated with a second entity (user B preferences) (at least Col 27, Lines 37-41 and

Col 27, Line 60 to Col 28, Line 8), where at least one of the first entity and the second

entity is a human being (Col 7, Lines 22-24), the communication manager identifying a

subset of the one or more communication modalities based at least in part on analysis

of the first and second communication data sets utilizing at least one of reasoning under

uncertainty and deterministic processing (possible communication modalities are

identified) (at least Col 60-62), and the communication manager establishing a

communication between the entities via at least one modality of the subset (at least Col

28, Lines 9-13) based at least in part upon determining an expected utility associated

with the communication ("best" connection is chosen) (at least Col 27, Line 60 to Col 28,

Line 8).

Theimer fails to specifically disclose that the expected utility is based at least in

part on cost benefit determination. Horvitz discloses using a cost benefit to weigh the

cost/benefit of interrupting the recipient with an immediate communication (at least

Section 3) versus the cost/benefit of delaying the communication until the costs have

decreased (at least Section 4). This would have been an advantageous addition to the

system disclosed by Theimer, since it would have reduced interruptions caused by

unimportant communications, without preventing important communications from reaching the recipient.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to base the expected utility, at least in part on a cost benefit determination to reduce interruptions caused by unimportant communications, while permitting important communications to get through immediately.

5.   With regard to claim 2, Theimer further discloses that the one or more communication modalities comprise at least one of: telephone modalities, facsimile modalities, computer modalities, paging modalities and personal modalities (at least Col 27, Lines 41-46).

6.   With regard to claim 3, Theimer further discloses that the telephone modalities comprise at least one of: POTS telephony, cellular telephony, satellite telephony and Internet telephony (at least Col 6, Lines 30-32).

7.   With regard to claim 4, Theimer further discloses that the computer modalities comprise at least one of: email, collaborative editing, instant messaging, network meetings, calendaring and home networking devices (at least Col 24, Lines 59-62).

8.   With regard to claim 5, Theimer further discloses that the personal modalities

comprise at least one of: videoconferencing, messengering and face-to-face meeting (at

least Col 27, Line 60 to Col 28, Line 8).

9.   With regard to claim 6, Theimer further discloses that establishing a

communication includes at least one of scheduling one or more communications,

calendaring one or more communications, displaying information concerning one or

more possible communication modalities available for communication between the

entities and initiating one or more communications (at least Col 28, Lines 9-13).

10.   With regard to claim 7, Theimer further discloses that the first communication

data set comprises a set of contactor context data (available media devices) and a set

of contactor preference (preferred connection type) data (at least Col 27, Lines 37-46).

11.   With regard to claim 8, Theimer further discloses that the second communication

data set comprises a set of contactee context data (available media devices) and a set

of contactor preference data (preferred connection types) (at least Col 27, Lines 53-59).

12.   With regard to claim 9, Theimer further discloses that the communication

manager comprises:

a preference resolver adapted to analyze the set of contactee preference data

and the set of contactor preference data and produces a resolved preference data

(determine "best" connection type)(at least Col 27, Line 60 to Col 28, Line 8);

a context analyzer adapted to analyze the set of contactee context data and the

set of contactor context data and produce an analyzed context data (determine

available media devices at both locations) (at least Col 27, Lines 35-41 and 53-59);

a channel analyzer adapted to analyze the possible communication channels

between a contactor and a contactee and produce a communication channel data

(determine available connection types) (at least Col 27, Lines 60-62); and

a communication establisher adapted to establish a communication between the

contactor and the contactee based, at least in part, on the resolved preference data, the

analyzed context data, entity selection data and the communication channel data

(initiate connection over the "best" communication path) (at least Col 27, Line 65 to Col

28, Line 13).

13.   With regard to claim 10, Theimer further discloses that the set of contactee

context data comprises contactee hardware data (available media devices), contactee

software data (available connection types) and contactee observed data (user

location/user preferences) (at least Col 27, Lines 53-60).

14.   With regard to claim 11, Theimer further discloses that the set of contactor

context data comprises contactor hardware data (available media devices), contactor

software data (available connection types) and contactor observed data (acceptable

connection types) (at least Col 27, Lines 35-41).

15.   With regard to claim 12, Theimer further discloses that the contactee hardware

data comprises at least one of capacity data, bandwidth data, availability data, status

data, cost data, revision data and hardware metadata (available devices)(at least Col

27, Lines 53-60).

16.   With regard to claim 13, Theimer further discloses that the contactee software

data comprises at least one of capacity data, version data, cost data and capability data

(available connection types) (at least Col 27, Lines 53-60).

17.   With regard to claim 14, Theimer further discloses that the contactee observed

data comprises at least one of time of the day data, current activity data, current task

data, calendar data, location data, contactor to contactee history data, attentional status

data, contactor class data, environment data and communication needs data (user

location/user preferences, etc.) (at least Col 27, Lines 53-60).

18.   With regard to claim 15, Theimer further discloses that the contactee preference

data comprises at least one of contactee preference hardware data, contactee

preference software data (preferred connection types)(at least Col 27, Lines 53-59),

contactee preference time of the day data, contactee preference calendar data (disable

messages during meeting) (at least Col 13, Lines 25-31), contactee preference

contactor priority list data and contactee preference special needs data.

19.   With regard to claim 16, Theimer further discloses that the contactor hardware

data comprises at least one of capacity data, bandwidth data, availability data (available

media devices), status data, cost data, revision data and hardware metadata (at least

Col 27, Lines 35-41).

20.   With regard to claim 17, Theimer further discloses that the contactor software

data comprises at least one of capacity data, version data, cost data and capability data

(available connection types) (at least Col 27, Lines 35-41).

21.   With regard to claim 18, Theimer further discloses that the contactor observed

data comprises at least one of time of the day data, current activity data, current task

data, calendar data, location data, contactor to contactee history data, attentional status

data, contactee class data, environment data and communication needs data

(acceptable connection types) (at least Col 27, Lines 37-46).

22.   With regard to claim 19, Theimer further discloses that the contactor preference

data comprises at least one of contactor preference hardware data, contactor

preference software data (preferred connection types), contactor preference time of the

day data, contactor preference calendar data and contactor preference special needs

data (at least Col 27, Lines 37-46).

23.   With regard to claim 20, Theimer further discloses that the communication

manager is further operable to perform at least one of the preference resolver inferring

probabilities for unspecified preference, the context analyzer is operable to infer

probabilities for context data and the channel analyzer is operable to infer probabilities

for channel data ("best" connection is established based on combined user preferences)

(at least Col 27, Line 62 to Col 28, Line 8).

24.   Claims 22,23,25-37,39,41,42 and 43 are rejected under the same rationale as

claims 1-20, since they recite substantially identical subject matter. Any differences

between the claims do not result in patentably distinct claims and all of the limitations

are taught by the above cited art.

Allowable Subject Matter

25.   Claim 38 is allowed.

Conclusion

26.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

27.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Aaron Strange whose telephone number is 571-272-

3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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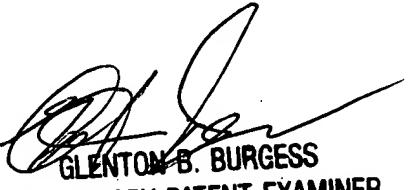
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